



Is the 'flying piano' the key to revolutionizing air cargo?

Description

US start-up Aerolane is developing a revolutionary approach to air cargo transportation by harnessing the power of air currents to surf through the skies. Their test aircraft, dubbed the "flying piano", is equipped with twin engines that idle for electrical power while propellers turn for aerodynamic purposes.

Inspired by migrating birds, Aerolane's team has been conducting tests to mimic the techniques used by geese to surf on air currents. By releasing smoke from a leading plane, they are able to capture vortices in the air that a glider can exploit to stay aloft.

Their goal is to guide unmanned cargo planes through wakes and turbulence to glide long distances without burning fuel, potentially reducing costs and emissions. By towing one or more cargo planes with a jet, Aerolane aims to achieve autonomous landings at the destination, with minimal fuel costs incurred.

While the concept has raised eyebrows among experienced pilots, Aerolane's team is working closely with aviation experts to address safety concerns and compliance with regulations. With the potential to revolutionize air freight operations, Aerolane's innovative approach to cargo transportation could pave the way for more efficient and sustainable air travel in the future.

Vocabulary List:

1. **Revolutionary** /ˌrɛvəˈluːʃənəri/ (adjective): Involving or causing a complete or dramatic change.
2. **Harnessing** /ˈhɑːr.nəs.ɪŋ/ (verb): Controlling and making use of natural resources.
3. **Aerodynamic** /ˌɛərəʊdaɪˈnæmɪk/ (adjective): Related to the structure of solid bodies moving through air.
4. **Vortices** /ˈvɔːrtɪsiːz/ (noun): Whirling masses of fluid or air especially in a spiral form.
5. **Autonomous** /ɔːˈtɒnəməs/ (adjective): Having the ability to operate independently.
6. **Turbulence** /ˈtɜːrbyələn(t)s/ (noun): Violent or unsteady movement of air or water.

Comprehension Questions

Multiple Choice

1. What is the nickname given to Aerolane's test aircraft?

Option: The Flying Hippo



- Option: The Flying Piano
- Option: The Sky Surfer
- Option: The Air Glide

2. What is the primary source of power for Aerolane's test aircraft?

- Option: Solar Energy
- Option: Wind Energy
- Option: Electrical Power from Idling Engines
- Option: Fuel Combustion

3. What technique inspired Aerolane's team in developing their approach to air cargo transportation?

- Option: Submarine Diving
- Option: Migrating Birds
- Option: Race Car Driving
- Option: Space Travel

4. How does Aerolane capture vortices in the air for their cargo planes to exploit?

- Option: Using Magnets
- Option: Releasing Smoke
- Option: Spraying Water
- Option: Deploying Nets

5. What is the main objective of Aerolane's approach to air cargo transportation?

- Option: Speeding Up Travel Time
- Option: Reducing Costs and Emissions
- Option: Increasing Aircraft Weight Limits
- Option: Adding Passenger Comfort Features

6. By towing cargo planes with a jet what does Aerolane aim to achieve?

- Option: Faster Takeoffs
- Option: Decreased Cargo Capacity
- Option: Autonomous Landings with Minimal Fuel Costs
- Option: Manual Control for Pilots

Answer

Multiple Choice: 1. The Flying Piano 2. Electrical Power from Idling Engines 3. Migrating Birds 4. Releasing Smoke 5. Reducing Costs and Emissions 6. Autonomous Landings with Minimal Fuel Costs



Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What word means to go beyond a certain limit or level?
Option: Competitive
Option: Revolutionary
Option: Exceeded
Option: Sustainable
2. Which term refers to the impetus gained by a moving object?
Option: Extinguished
Option: Momentum
Option: Compliance
Option: Incentives
3. What do you call the effects or results of a particular action or situation?
Option: Refund
Option: Consequences
Option: Mojo
Option: Acknowledged
4. Which term describes a positive or optimistic outlook on a particular situation or investment?
Option: Evacuation
Option: Bullish
Option: Contamination
Option: Foreign
5. What word means to establish or indicate who or what someone or something is?
Option: Recall
Option: Sustainable
Option: Identified
Option: Surpassed
6. Which term means to accept or admit the existence or truth of something?
Option: Grounded
Option: Acknowledged
Option: Speculation
Option: Precaution
7. What is the term for the action of removing people from a place of danger to safety?



- Option: Evacuation
- Option: Sustainable
- Option: Notable
- Option: Harnessing

8. Which word refers to the forming of a theory without firm evidence?

- Option: Compliance
- Option: Speculation
- Option: Vortices
- Option: Exceed

9. What word describes a situation where different individuals or groups are trying to win something?

- Option: Competitive
- Option: Grounded
- Option: Mojo
- Option: Impressive

10. Which term describes the action or fact of complying with a wish or command?

- Option: Refund
- Option: Compliance
- Option: Vortices
- Option: Equilibrium

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. The company aims to implement _____ practices to protect the environment for future generations.

12. If the product is faulty customers are entitled to a full _____.

13. The new technology focuses on _____ natural energy sources.

14. Despite his success John remained humble and _____.

15. It is advisable to take extra _____ when dealing with hazardous materials.

16. The suspect was wearing a very _____ red hat that made him stand out.

17. The lab tests revealed the presence of _____ in the water supply.



18. The team seemed to have lost its _____ after the star player got injured.
19. The athlete _____ all previous records with an incredible performance.
20. The building was _____ due to a suspected gas leak.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. The new smartphone design was truly groundbreaking and changed the industry.
22. The presentation was so captivating and well-delivered that it left a lasting impact on the audience.
23. The company expanded its operations into several markets to increase its global presence.
24. The tornadoes formed powerful swirling that could be seen from miles away.
25. Her achievements in the field of science were so remarkable that she became a figure in the academic community.
26. The market was highly with multiple companies vying for the top spot.
27. The country focused on its rich natural resources for economic development.
28. The car was designed with sleek lines and a rounded shape for maximum efficiency.
29. The company implemented strict policies to ensure with industry regulations.
30. There was widespread about the new product's claims until it was independently verified.

Answer

Multiple Choice: 1. Exceeded 2. Momentum 3. Consequences 4. Bullish 5. Identified 6. Acknowledged 7. Evacuation 8. Speculation 9. Competitive 10. Compliance

Gap-Fill: 11. sustainable 12. refund 13. harnessing 14. grounded 15. precaution 16. identifiable 17. contamination 18. mojo 19. surpassed 20. evacuated

Matching sentence: 1. revolutionary 2. impressive 3. foreign 4. vortices 5. notable 6. competitive 7. harnessing 8. aerodynamic 9. compliance 10. skepticism

CATEGORY

1. Business - LEVEL3

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